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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,090	06/26/2002	Satoshi Hirano	PHJ 99-024	8154
24737	7590	09/09/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			DINH, DUC Q	
			ART UNIT	PAPER NUMBER
			2674	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/889,090

**Applicant(s)**

HIRANO ET AL.

**Examiner**

DUC Q. DINH

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-5 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5 and 7-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. The terms "minimum/maximum color value, color pixel value, input color value" in claims 7-20 are relative terms which render the claims indefinite. The term "minimum/maximum color value, color pixel value, input color value" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. These terms should be read as minimum/maximum luminance value, color luminance value" as implied in page 7-8 of the specification.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanioka (U. S. Patent No. 5,929,843).

In reference to claims 3-5, Tanioka discloses a liquid crystal display capable of displaying color image comprising: a liquid crystal panel in which each main pixel unit including a red sub-pixel, a green sub-pixel, a blue sub-pixel and a luminance sub-pixel (see Fig. 2) a calculation means for calculating digital output values of  $R'$ ,  $G'$ ,  $B'$  for driving the red sub-pixel, the green sub-pixel and blue sub-pixel, respectively, from the digital 8 bit R,G,B color data from a host computer and a predetermined digital value  $W$  for driving the luminance sub-pixel so that a relationship of  $R:G:B=(R'+W'):(G'+W'):(B'+W')$  is satisfied, the values R,G,B being obtained from input color image, wherein the digital value is obtained in accordance with a function represented by a formula  $W'=f(Y_{min})$  wherein  $W$  is the minimum input values for red/green/blue sub-pixels. Tanioka does not disclose the value  $W'$  is obtained in accordance with a function represented by a formula  $W'=f(Y_{max}, Y_{min})$ , where  $Y_{max}$  a maximum value of the red/green/blue sub-pixels. It would have been obvious to recognize the digital RGB data input as shown in Fig. 1 also having maximum luminance  $Y_{max}$ , but only  $Y_{min}$  is used to obtain the  $W$  value. Furthermore Tanioka discloses the value of  $W'$  for driving white sub-pixels can be obtained by two values  $W_0$  and  $W_1$  (see formula (4) col. 9, lines 35-40 and formula 5, col. 10, lines 1-5).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to use another luminance value, i.e.: maximum luminance value, along with the minimum luminance in RGB input data of Tanioka to obtain the  $W$  value as suggested by Tanioka so that the color can be suitable displayed (col. 10, lines 10-15) that would satisfying the claimed limitation:  $W=f(Y_{max}, Y_{min})$  as claimed which monotonously increases as a value of the  $Y_{max}$  value or  $Y_{min}$  value becomes larger or in which the  $Y_{min}$  is a variable with the  $Y_{max}$

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being a constant and in the function of  $W = f(Y_{\max}, Y_{\min})$  is a function which monotonously increases as a value of the  $Y_{\min}$  becomes larger as claimed.

***Allowable Subject Matter***

5. Claims 7-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Response to Arguments***

6. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However, upon reconsideration, the rejection for claims 3-5 is maintained in view of the new ground of rejection as elaborated in this Office Action. With respect to the 112 second paragraph rejection, Applicants argue that "Applicants refer to luminance as a "dimension" throughout the specification, and specifically ... regardless of the dimension of each data of the red, green and blue. However, it is noted that the features upon which applicant relies (i.e., the dimension of each data of red, green and blue) are not recited in the rejected claim(s) instead the terms "color values, color pixel values, input color values" which render the claims indefinite. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore the 112 second paragraph rejection is maintained.

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### ***Conclusion***

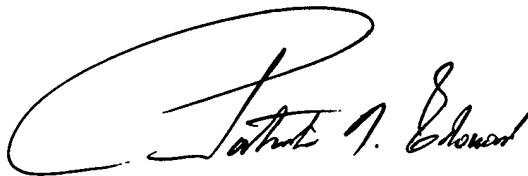
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q. DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edouard Patrick can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUC Q DINH  
Examiner  
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DQD  
September 1, 2005

A handwritten signature in black ink, appearing to read "Patrick N. Edouard", is written over a large, stylized, loopy initial "P".

**PATRICK N. EDOUARD**  
**SUPERVISORY PATENT EXAMINER**